

Forensic Medicine 2009

Please answer the following questions:

1- The environmental pollution in our co important problem which effect animal health.

- Discuss this problem and mention the source of pollution and how can you diagnose and treat one of this toxic agents.

2-

a) How can you diagnose a case of toxicity from the physical properties of animal excreta.

b) What are the sources, clinical picture, treatment, post mortem finding and lab. Investigation in case of lead toxicosis

3-What do you know about:

a) Mechanical antidotes.

b) Treatment of Organo phosphorus poisoning.

c) Role of stomach in enhancing and delaying toxicity.

d) Cause of death and treatment in case of snake bite poisoning.

4-Discuss:

a) Different types of hepato mycotoxins and how can you control and diagnose the most type one In Egypt.

b) What are the precautions must be taken during the chemical warfare agent attack.

c) What are the symptoms, Diagnosis and treatment of Co Toxicosis.

Forensic Medicine 2010

Please answer the following questions:

1- What are the causes of death and P.M. finding in case of:

- a) Selenium toxicosis.
- b) Warfarin toxicity.
- c) Tarter emetic over dose.
- d) Co. Poisoning.

2- A cow (4501cg b.w.t.) suffer from constipation, colic, offensive odour feces, , incoordination, truble vision, during summer. Comment with discussion the cause of these symptoms and how can you treat this case?

3- A Dog being to the clinical hospital suffering from nervous signs, frequent urination and defecation, high blood citrate and hyperglycemia.

what is the suspected cause, its mode of action and how can you treat this case?

4- Pollution of air, water, food (ration), drugs and.... ;....., play an important factors in environmental toxicity - mention forms of this pollution and discuss how can you solve this problem.

Forensic Medicine 2011

A) What do you know about:

- 1) Causes of false results at lab. Investigations in case of toxicity diagnosis.
- 2) Mechanism of action in different mechanical antidotes.
- 3) Diagnosis of a case of toxicosis from the circumstance evidence and the clinical signs.
- 4) Diagnosis and differential diagnosis of arsenic toxicity and other diseases with special references to its treatment.
- 5) How can you treat the following cases:
 - a. Lead oxide toxicity.
 - b. Mercurous chloride toxicosis.
 - c. Tartrate emetics over dose toxicity.

B) The inhibition of enzyme is the mode of action of some pesticides. Mention one example for insecticide, herbicide and rodenticide then discuss the toxicity of a rodenticide details.

C) Write short notes on:

- 1) Toxicity of ochratoxin.
- 2) Water pollution and its side effect with special reference of its control.

Forensic Medicine 2012

1-Discuss the following:

1. Different routes of administration of toxicant.
2. Laboratory investigation in case of toxicosis.
3. Mechanical antidotes.
4. Treatment of arsenic toxicity.
5. Symptoms of mercury toxicity in a horse.

2-Write the mode of action and treatment of the following:

1. Paraquat.
2. Zeralenon.
3. Snake bit.
4. T-Z toxin.
5. Oxalic acid toxin.

3- You invited to solve a toxicity problem in a dairy farm have some animals suffering from dyspnea, rosy face, bright red mucous membranes and sudden death. What you suspect and how can you diagnose and treat this case.

Forensic Medicine 2013

Please answer the following Questions

1. Write about on the

- a. The barriers in the bod and its role in distribution and detoxification of poisons.
- b. Toxic — toxic interaction.
- c. Glutathione conjugation and its role in detoxification.
- d. Procedures used for Prevention of further absorption of the poison.
- e. Classification of cells according to radiation sensitivity.
- f. Mode of action and treatment of Deltamethrin toxicity.
- g. Mention the clinical signs of facial eczema in sheep.

2. In a herd of cattle group is suffering from urination, lacrimation, diarrhea, miosis, bradycardia and salivation. Other group is suffering from involuntary twitching, tremor, ataxia and tachycardia. What is the suspected toxic agent, its mode of action and diagnosis? How can you treat each group?

3. How can you treat the following cases?

- a. Disodium methyl arsenate toxicity.
- b. Antimony trichloride toxicosis.
- c. Mercury inhalation in lab-animals

4. What are the sources, clinical picture, treatment, postmortem finding and laboratory investigation in case of lead toxicosis?

5. Discus diagnosis and treatment of one corrosive characterized by remote effect and alteration of energy production.

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Forensic Medicine 2014

Please answer the following Questions

1. Under what conditions environmental pollution occur? discuss the sources of pollution and mention How can you help in solving this problem
2. Describe the clinical signs and treatment of the following
 - a. Acute arsenical poisoning.
 - b. Lead toxicosis.
3. Write short notes about the following
 - a. Enumerate corrosive poisons induce muscular tremor% and one of their have hypercalcemia like signs.
 - b. Mechanism of toxicity and treatment of histotoxic anoxia
4. Discuss the following:
 - a. Biotransformation reactions of aflatoxin (only in diagram).
 - b. Detoxification reactions of OTA in ruminant animal
5. Write the mode of action and treatment of the following
 - a. Paraquat.
 - b. DDT.
 - c. Dinitrophenol herbicide.

6. Choose the correct answer between the brackets

- 1- One of the following drugs is considering teratogen (Sulphonamides- carbon tetrachloride- thialmide- lead).
- 2- Nitrate changes into (nitrite- nitric oxide- nitrosamine) which lead to carcinogenicity.
- 3- Benzoic acid more diffused in (neutral- acidic — alkaline) medium.
- 4- One of the following plants is edible plant but may be poison (Atropa belladonna- Potato — Datura stromonium)
- 5- Facilitate diffusion (need low energy- need high energy - not need energy)
- 6- Particles engulfed by cells called (pinocytosis- ingestion- phagocytosis)
- 7- Metallothionin bind (cadmium- lead- mercury- arsenic) in the liver and kidney.
- 8- Replaced OH in hydroxyapatite crystals in bone (cadmium — lead — fluorine-strontium).
- 9- Polychlorinated biphenyles storage in (bone- liver- kidney- adipose tissues).
- 10- The most toxic substances excreted in the milk are (acidic compounds-basic compounds- hydrophilic compounds).
- 11- In phase I reaction (remove- addition — conjugate — change) functional group.
- 12- The catalyzed enzyme in glutathione conjugation is (glutathione peroxidase-glutathione reductase- glutathione S transferase)
- 13- Chronic copper toxicity is a problem in (cattle — goat- sheep- horse).
- 14- The interaction toxicity between carbon tetrachloride and alcohol on the liver is considering (antagonist- synergistic- additives-, potentiation) effect.
- 15- Most of microsomal enzymes located in (lysosomes- mitochondria- smooth endoplasmic reticulum- rough endoplasmic reticulum).
- 16- The urine is normally acidic so considering good media for excretion of (organic bases- weak acids- organic acids).
- 17- One of the following used as precipitating agents in universal antidote (magnesium oxide- tannic acid-charcoal).
- 18- Act as reducing antidote (methylene blue- calcium chloride-sodium carbonate).
- 19- Ferric hydroxide used as precipitating antidote for (arsenic- oxalic acid-lead- carbolic acid).
- 20- Potassium permanganate act as (precipitating- reducing- oxidizing-neutralizing) antidote.

Forensic Medicine 2015

Please answer the following questions

1. How can you diagnose a case of toxicosis from the examination of excreted matter of animal species?
 2. Pollution of air, water and food give important factors in human and animal health, comment and how can help in solving this problem.
 3. Mention the clinical signs and treatment of a- Urea toxicity. b- Snakes poisons.
 4. Please mention the fungal species and clinical signs for the following cases: (31 a- Convulsive ergotism. b- FE in dairy cattle. c- T-2 toxin in you
 5.
 - A. Define the following and give example for each
Bioactivation -Biomagnifications- Bioavailability.
 - B. Write the mode of action of the following
Paraoxon -Paraquat -Fluoroacetate
- A- Choose the correct answer**
1. One of these poisons is bacterial toxin (microcystine- aflatoxin- alphatoxin - thiobine)
 2. One of these poisons is carcinogenic (thialamide - sulphonamide - carbon tetrachloride - nitrosamine).
 3. Chronic copper toxicity is a problem in (sheep — Goat- cow- horse).
 4. Morphine cause depressed effect in (cow- dog -cat — horse)
 5. The most radiosensitive cell is (spermatides - spermatozoa spermatogonia type A - Neuron)
 6. (Toxaphen - DDT - Aldicarb - Cypermethrin) make reversible inhibition of cholinesterase.
 7. One of these pyrethroids make inhibition of GABA (resmethrin deltamethrin - permethrin -allethrin)
 8. (Atropine — morphine —acetaminophen - nalorphine) make depletion of glutathione.

B- Write the scientific name of these phrases

1. Moves molecules across a membrane against concentration gradient.
2. Elimination of a constant quantity per time unit of the toxin quantity present in the organism.
3. When two chemicals produce opposite effect on the same physiological parameters.
4. The combination of two chemicals greater than the sum.
5. The toxicity of substance on an organ markedly increased by another substance that alone has no toxic effects on that organ.
6. Unit of radiation absorbed dose and is a measurement of energy deposition in any medium by all types of ionizing radiation.
7. Composed of equal amount from 2,4-D and 2,4,5-T
8. Protect the embryo against the harmful effect of toxicants.

C- Complete the following

1. Henderson - Hasselbach equation for bases.....
2. In the intestine there are special carrier mediated transport system for toxicants as ---
--- and -----
3. The main site of absorption in the respiratory tract is.....This is due to -----
4. Hypoglycemic coma may occurs due to.....substituted of ----- in plasma protein.
5. ----- replaced OH in hydroxyapatite bone crystals.
6. probenecide can increase the serum level of penicillin and prolonging its action by
7. glutathione conjugation need catalyzing enzyme-----and cofactor-----
8. The best genetic agents in dog and cat is -----its dose -----and administration route-----

Internal Medicine 2012

Group I

Write an account on:

- a. Treatment of broncho pneumonia.
- b. Diagnosis of traumatic pericarditis.

Group II

Write briefly on:

- a. Clinical findings of acute rhinitis in equines.
- b. Treatment of epistaxis in horses.

Group III

Write short notes on:

- a- Pathogenesis and clinical findings of water intoxication.
- b- Diagnosis of pulmonary emphysema in horses.
- c- Management of congestive heart failure in horses.

Internal Medicine 2013

Answer the following

Group 1

- 1) A horse was admitted to your clinic showing general signs of unilateral intermittent nasal discharges, swelling of sub-maxillary lymph node, snorting and conjunctivitis. How can you deal with such case?
- 2) Describe the pathogenesis and patho-physiology of acute bronchopneumonia in cattle.
- 3) Mention the causes and line of treatment of bilateral epistaxis in equines.
- 4) Lameness, failure of support, insufficiency of movement and deformity are the major clinical-manifestations of diseases of musculoskeletal system. Please, tabulate the differential diagnosis of diseases that affect organs of support in farm animals.

Group 2

- 1) What are the general causes of verminous broncho-pneumonia in farm animals?
- 2) Write a brief account on cardiac reserve and compensatory mechanisms in heart failure.
- 3) You are invited to visit a dairy farm on which the director complained from a febrile cow showing the clinical signs of reluctance of movement, abduction of the elbows and arching of back as well as a detectable pericardial frictional sound by auscultation over the cardiac area. Write a brief account on the pathogenesis and differential diagnosis of such case and express your opinion about your interference.
- 4) Discuss the pathophysiologic correlation between each of the following (Choose only 2 questions):
 - a. Water intoxication and hemolysis of RBCs in calves with normal serum sodium concentration.
 - b. Diseases initiating a systemic inflammatory response and DIC.
 - c. Endotoxin and maldistributive shock

Internal Medicine 2014

Answer the following

Group 1

A. A buffalo calf was admitted to your clinic suffering from fever, moist cough dyspnea, bilateral mucoid nasal discharges and abnormal chest sounds. What your diagnosis? And describe the process by which the disease developed as well as the physiological response of animal body and line of treatment.

B. Write short notes on three of the followings:-

1. The schools clarifying the general idea for the pathogenesis of chronic alveolar emphysema in equines.
2. Causes of pulmonary edema and congestion.
3. Clinical findings of pleurisy in cattle
4. Differential diagnosis of chronic rhinitis in equines.

Group 2

Write a brief account on the following:-

1. General manifestation of musculo-skeletal disorders in farm animals.
2. Treatment of different types of arthritis in farm animals.
3. Pathogenesis and medical management of septic shock in equine neonates

Group 3

Write an account on the following:-

1. Etiology and pathogenesis of water intoxication in farm animals.
2. Etiology and pathogenesis of congestive heart failure in cattle.
3. Pathogenesis and clinical findings of pericarditis in cattle

Internal Medicine 2015

Group 1

A. A buffalo was admitted to your clinic with a picture of shallow painful abdominal respiration, dyspnea, fever, and shallow painful paroxysmal cough. What disease you suspect? and mention the pathogenesis and line of treatment.

B. **Write short notes on the following:**

1. Differential diagnosis of chronic rhinitis in equine.
2. Treatment of bilateral epistaxis in equine.
3. The pathogenesis and patho-physiology of acute broncho pneumonia in calves

Group 2

A. **Enumerate** the different types of myopathies encountered in the farm animals and discuss fully the patho-physiology of the most important ones affecting young rapid growing lambs.

B. **Write a brief account on the following:**

1. Treatment of arthritis in calf.
2. Cardiovascular diseases associated with poor performance in the horse

Group 3

A. **Write an account on the following:**

1. Clinical signs of congestive heart failure in cattle.
2. Pathogenesis of hypovolemic and maldistributive shock in cattle.

B. **Tabulate the differences** between traumatic pericarditis, endocarditis and myocarditis in cattle.

Theriogenology 2009

Please answer the following:

1-How can you deal with:

- a- A cow with closed pyometra.
- b- Imperforated hymen.
- c- Lack of sexual desire in bull.

2-Write a brief account on:

- a- Causes of ovaritis.
- b- Causes of silent heat.
- c- Heat detection aids.

3-differentiate between each tow of the pregnancy:

- a- Testicular degeneration and testicular hypoplasia.
- b- Three months pregnancy and pyometra.

4-From the gynecological point of view, a cow is presented for treatment of infertility is a serious problem due to a high economic losses which disturb the owner .what are the main complains of the owner? How can you manage such problem?

Theriogenology 2010

Please answer the following questions:

- 1-A group cows suffering from repeat breeder after introducing a new bull. Clinical and laboratory examination revealed normal cows. Enumerate the possible causes and discuss one of them.
- 2-**Buffalo-cows** with a history of postpartum anestrus with a purulent vaginal discharge what could be this case. How can you deal with it.
- 3-**Management of the both cow and bull** play an important role in fertility. Discuss.
- 4-**Write short note on only three of the following:**
 - a- chronic cervicitis.
 - b- Ovarian hypoplasia in heifers.
 - c- Broken penis in station.
 - d- Urine laboratory test for pregnancy diagnosis in mares.

Theriogenology 2011

I- Define:

- a. EMS.
- b. Non breeding cow syndrome.
- c. Cuboni test.
- d. Finchcr's pencil test.
- e. Chimerism.

II- Discuss:

- a. Treatment of silent heat.
- b. Chronic cervicitis in cow.
- c. Treatment of bull suffering from lack of sexual desire.
- d. Diagnosis of endometritis (E2).
- e. Treatment of phimosis.

III-How can you differentiates between:

- a. Complete bilateral ovarian hypoplasia and inactive ovaries.
- b. Testis degeneration and htypoplasia.
- c. Different cases of inter-sex in cattle.
- d. Follicular theca cyst and mature grafian follicle.
- e. True and pseudo-hermaphrodites.

Theriogenology 2012

1- Define the following:

Paraphimosis - Sterility hump - Periorchitis - Uterus didelphys
Cunadless condition.

2- A lack of potency or impotency is observed certain males and is characterized by symptom ranging from a complete lack of sexual interest to a slight delay in performing normal coitus. How can you deal with a bull suffering from this problem?

3- How can you:

- a- Detect patency of fallopian tubes?
- b- Diagnose silent heat.
- c- Treat a case with delayed ovulation?
- d- Diagnose mucosal cysts.

4- What are the causes, clinical findings and treatment of ovarian inactivity in a buffalo cow?

4- Repeat breeder are those cows or heifers with regular or irregular estrus cycles but failed to conceive in spite of frequent services or inseminations and the clinical examination of genital organs showed no detectable structural or functional abnormalities.

Discuss fully the causes of repeat breeder syndrome.

Theriogenology 2013

Please answer the following Questions

1. Discuss fully anestrus Syndrome.
2. Define the following terms
 - a. False double cervix
 - b. Heterogenesis
 - c. Repeat breeder
 - d. White heifer disease
 - e. Rubin insufflation test
3. Describe the clinical findings and the treatment of the following
 - a. Granulosa cell tumor in a cow
 - b. Endometritis (E3) in a buffalo
4. Illustrate the scrotal appearance and semen picture (changes) in the following affections
 - a. Anorchia
 - b. Bilateral orchitis
 - c. Bilateral testicular degeneration
5. Compare between follicular and luteal cysts with special reference to the diagnosis and treatment of these cases and explain the etiology (pathogenesis) of these cases.

Theriogenology 2014

Please answer the following questions

1. **Mention** the possible causes and line of treatment of follicular cysts in a cow.
2. **What are the causes** lead to failure of fertilization?
3. **Discuss briefly** 3rd degree of White heifer disease.
4. **How can** you treat a case of endometritis in a cow?
5. **Discuss fully** Phimosis and Paraphimosis.

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Theriogenology 2015

Please answer the following questions,

1) Write short note on

- a. Diagnosis and treatment of bull with acute orchitis
- b. Repeat breeder due to gametes factors.

2) Differentiate between the following:

- a. Subfunctional and subestrus anestrus.
- b. Follicular cyst and luteal cyst in cow.
- c. Bilateral testicular aplasia and bilateral
- d. Pyometra and chronic catarrhal endometritis

3) Write short account on

- a. Diagnosis and treatment of chronic cervicitis.
- b. Differential diagnosis and prognosis of primary anestrus causes
- c. Causes and sequelae of ovulatory failure.

Milk Hygiene 2009

Please answer the following Questions:

1-Comment on the following:

- a) Mention the methods of pretreatment of raw milk before pasteurization and discuss fully two of them.
- b) Enumerate defects of butter and mention the measure used to avoid manufacturing defects.
- c) Control of egg spoilage.

2-What briefly on:

- a) Differences between enteropathogenic E.coli and Bacillus cereus food poisoning.
- b) Source of microbial contamination of hens eggs.
- c) Discuss the bacterial faults of cheese and how can you prevent its occurrence in cheese.
- d) Describe the ingredients used for ice cream manufacture.

3-Write full account on:

- a) Manufacture of Margarine and its legal requirements.
- b) Processing and Defects of dried milk.
- c) Criteria and its application for evaluation of dairy products.

Milk Hygiene 2009

Please answer the following Questions:

1- Write briefly on:

- a) Microbiological problems of pasteurized milk and how to assess the efficiency of pasteurization, legal requirements and factors affecting its keeping quality.
- b) Ducks egg contains high percentages of contamination, if such eggs are consumed raw or semi-raw may responsible for sporadic or epidemic diseases.

2- Write about:

- a) Acid degree value and its significance for fats and oils.
- b) Biogenic amines and their public health significances.
- c) Methylene blue red reduction test in ice cream.

3- What do you know about:

- a) Microbiological criteria with application of sampling plane.
- b) Margarine.
- c) Methods for detection of melamine in milk powder and its public health significance.

Milk hygiene 2010

Please answer the following Questions:

1- Discuss fully:

- a) Manufacture and defects of milk powder (Spray method) and yoghurt.
- b) Tabulate the difference between butter and margarine.
- c) Chlorine.

2- Give an account on:

- a) Starter.
- b) Objective of heat treatments and reception section.
- c) Diabetic ice cream.

3- What about:

- a) Problems associated eggs, acrylamide and mycotoxins.
- b) Fitness of farm milk for manufacture of cheeses.

Milk hygiene 2011

Please answer the following Questions:

1- Discuss Briefly:

- a) Problems associated milk stones, prevention and control program
- b) standardization of milk fat.
- c) Agglomeration process used in production of instant dry milk.

2- What about:

- a) Application of HACCP.
- b) Defects of cheese.
- c) Problems associated ignited oils.
- d) Probiotics.
- e) Survival of pathogen in butter.

Milk hygiene 2012

Please answer the following Questions:

1- Discuss briefly:

- a) Application of HACCP (eggs- fats & oils- dairy products made from raw milk).
- b) Storage of acceptable farm milk.

2- Give an account on the following:

- a) Probiotics.
- b) Diabetic ice cream.
- c) A broad spectrum disinfection.
- d) Surfactants.

3- Give reasons:

- a) Sterilized milk gained wide attention.
- b) Rubbery soft cheese.
- c) Rancid butter.

4- Write on:

- a) Manufacture and problems of processed cheese.
- b) Legal requirements of milk powder.
- c) Modification of pasteurization.

Milk hygiene 2014

Answer the following questions:

A. Discuss Briefly

1. Homogenization as a step of pretreatment of milk.
2. Milk stone is an industry problem, Discuss briefly and mention how to prevent & Control.

B. Write on

1. Manufacture of concentrated milks and compare about the media preservation.
2. Manufacture of butter and defects

C. Give an account on

1. Manufacture and defects of soft cheeses
2. Ice cream defects, Discuss briefly about overrun%

D. Write short notes about

1. Ignited oils and its problems.
2. Antimicrobial defense of egg albumin.
3. prerequisite programs and HACCP

Milk hygiene 2015

A. discuss briefly

1. Sour cream and flavor defects of butter
2. Properties of effective and fast-acting detergent
2. Instant dry milk products
3. In a dairy plant how can you guarantee the consumer that the product of Constant fat content 3%, if you know that $H = 5\%$ and $L = 0.05\%$?

B. write on

1. Differentiation between butter and margarine
2. Manufacture of plain yoghurt and defects
3. large scale preservation of table eggs

C. Give an account on

1. Manufacture and microbial defects of hard cheeses
2. Large scale manufacture of ice cream.
3. Application of HACCP in dairy industry with reference of pasteurized milk production

Morbid Pathology 2010

Group I

- 1- Owner of your dogs came to your necropsy room and told you that he suspected that his dog died from toxicity with history of sudden death after short period of vomiting, fever, bloody diarrhea and abdominal pain besides congestion of the conjunctiva with copious lacrimation and diffuse cloudiness of the cornea. Grossly you observed congested and enlarged liver besides edematous gallbladder wall, tonsillitis and hemorrhages in different organs particularly stomach. Name the suspected disease and describe microscopic picture.
- 2- In your laboratory you received slides prepared from a biopsy obtained from oral mucosa lips and udder of goat. When you examined the slide you observed hyperplasia of the epidermis with long extension into dermis. Moreover, vacuolation, ballooning and vesiculation of epidermal cells with ICIB. Name the suspected diseases and describe the macroscopic picture.
- 3- Young died calf brought to necropsy room with history of respiratory manifestations, red nose, explosive cough and mucopurulent nasal discharge. The necropsy revealed that the lesions were noticed on nasal passage and trachea and bronchi and represented by congested and edematous mucous membrane leading to stenosis and bronchopneumonia. Name the disease and describe the microscopic picture.
- 4- When you did the necropsy to horse died after suffering from swelling of the head. Lips, eyelids and neck with a prominent obliteration of the supraorbital fossa, you recorded Anasarca, hydro pericardium and hydrothorax. Name the disease and describe the microscopic picture.
- 5- List the differences between African swine fever & Hog cholera,

6- Mention the pathognomonic lesions of the following:

- I- Cattle plague.
- II- MCF.
- III- Feline panleukopenia.

7- Describe the macroscopic picture of blue tongue.

Group II

1- Give reasons for:

- a- Tissue damage in coccidiosis.
 - b- Abortion in acute sarcosporidiosis.
 - c- Tissue necrosis in acute infectious phase of toxoplasmosis.
 - d- Absence of inflammatory reactions around brain cyst in neospora caninum infection.
 - e- Vasculitis and glomerulonephritis in trypanosomiasis.
 - f- Centr lobular hepatic necrosis in babesiosis.
- 1- describe the pathogenesis and lesions of theileriasis.
- 2- Describe the microscopic picture of the following:

I- Pneumocystosis.

II- Cryptosporidiosis.

GROUP III

1- Describe the pathogenesis and lesions of the following:

- I- Haemonchosis.
- II- Hydatid cyst.
- III- Disease in horse induced by migration of larval stages through the intima and lumen of mesenteric arteries.

2- Describe the microscopic picture of the following:

- I- Mullerius capillaries in sheep.
- II- BSE.

Morbid Pathology 2011

Group I

Write what you know about the following:

1. Pathogenesis of poxvirus infection in animals.
2. Pathogenesis and lesions of FMD.
3. Lesions of aborted fetus associated with equine viral rhinopneumonitis.
4. Pathogenomic lesions of:
 - a. Lumpy skin disease.
 - b. Malignant catarrhal fever.
 - c. Feline panleukopenia.
 - d. Nature, types and importance of inclusion body viral diseases.

Group II

1. Describe the lesions of the following:
 - a. bluetongue disease.
 - b. Rift valley fever.
2. Describe the differences between rinderpest.
3. Mention the pathognomonic lesion of the following:
 - a. Rabies in cattle.
 - b. Scrubie.
 - c. Canine distemper in epidermis of nose and foot.

Group III

Lists the types of the following:

1. Coccidiosis and mentioned the sites of schizogony and gametogony.
2. The abomasal worms and differentiate between their lesions.
3. Pathognomonic lesions of the following:
 - a. Toxoplasmosis in the brain or placenta of infected mice.
 - b. Strongylus vulgaris.
 - c. Sarcoptic mange.

Morbid Pathology 2012

Group I

- 1- Enumerate with lesions the parasites inhabit the bronchus and lung of sheep and goat.
- 2- **Describe the lesions of the following:**
 - a- Sarcosporidiosis in cattle.
 - b- Dourine disease in horse.
- 3- **Define the following:**
 - a- Pipe stem liver.
 - b- Nurse cell.

Group II

- 1- Compare the enteric lesions produced by Rota and corona viruses.
- 2- **Give the reason (s) for the following:**
 - a- Formation of button ulcer in *Vibrio cholera*.
 - b- Bluish discoloration of the tongue in blue tongue disease.
 - c- Development of hyena disease in cattle affected with BVD-MD.
 - d- Enlargement of different organs especially lymph nodes in bovine leucosis.
- 3- Enumerate viral diseases causing pneumonia in cattle & describe in details the lesions of the virus causing atypical interstitial pneumonia.
- 4- Describe the lesions of mad cow disease.
- 5- Lentivirus belongs to Retroviridae family, produces 2 forms of diseases in adult sheep. Mention these diseases and their associated lesions.

Group III

1- Please complete the sentences with correct answer:

- a- Examples of DNA viruses that form intra cytoplasmic inclusion bodies in infected cells are..... And.....
- b- Alpha herpes viruses causes lesions..... on.....
- c- The pathognomonic lesion of malignant catarrhal fever infection is.....
- d- Examples of capri pox virus infection are &..... A mortality rate of 100% can be seen and the lesions are.....
- e- Infectious bovine rhinotracheitis infection causes abortion at months of gestation.
- f- A roseola is a lesion of infection and it means.....
- g- While infects pigs, ruminant, horses and human
Infects pigs, ruminants and human.
- h- Picornaviridae includes four genera,
..... And.....
- i- Microscopically, Bovine cutaneous papillomatosis infection causes
.....,, and
- j- Iridovirus infections causes disease in pigs,
macroscopically it cause,..... And

2- Please choose the correct answer:

- a- Tiger can be seen in.....
 - i. Foot and mouth disease.
 - ii. Swine vesicular disease.
 - iii. Bovine viral diarrhea disease.
- b- Cellules clavelleuses are recorded in.....
 - i. Sheeppox virus infection.
 - ii. Bovine popular stomatitis disease.
 - iii. Wart hog disease.

- c- A pathognomonic lesion for infectious canine infectious infection is .
- Intra nuclear inclusion bodies in the infected hepatocytes.
 - Intra cytoplasmic inclusion bodies in the infected hepatocytes.
 - Intra nuclear inclusion bodies in the infected pneumocytes.
- d- Pseudo rabies is.....
- Herpes infection.
 - Adenovirus infection.
 - Picornavirus infection.
- e- A virus showing latency in secretory glands and other tissue is..... it causes necrosis and inclusion bodies in various organs.
- Cytomegalovirus/ betaherpes virus.
 - Rhabdovirus.
 - Retrovirus.
- f- Parvoviruses replicate in.....
- GIT, bone marrow, and fetus.
 - Brain, respiratory, and urinary system
 - GIT, skeletal muscle, and lymphoid organs.
- g- Contagious ovine ecthyma is caused by.....
- Parapox virus.
 - Leporipox virus.
 - Capripox virus.

And characterized by lesions on

- Lips, oral mucosa, and udder.
- Heart, liver, kidneys, and other internal organs.
- The body surface.

Morbid Pathology 2013

Please answer all questions

Group 1

1. Carefully read and suspect the following case then mention the pathogenesis and lesions of a stray dog with respiratory signs, scaly-foot pad and paraplegia.
2. Describe the pathognomonic lesions of the following diseases
 - a. Sheep Pox
 - b. Rift Valley fever
 - c. Lumpy Skin disease

Group II

1. Explain the causes of the following lesions

- Anemia accompanied fascioliasis
- Achlorhydria accompanied infestation with stomach worms
- Arterial thrombosis accompanied infestation with strongylus ulgaris
- Paralysis may accompany acariasis

2. Give the scientific name of the following

- Liver shows thickened, narrowed and calcified bile ducts in its cut section
- Arrested eggs of Schistosoma in visceral tissues
- Larval stage of echinococcus granulosus

- Somatic migration of 2nd stage ascarid larvae in tissues of nonspecific hosts with or without inflammation-.
- Invaded muscle fibers with larvae of trichinella spiralis
- Invasion of living tissues of animals by larval stages of flies

3. Enumerate

- Parasites causing neoplasms
- Parasites causing skin dermatitis

Group III

1. Please complete the sentences with a correct answer:

- Nagana disease can cause cell degeneration in.....
- Aborted cattle feti infected with Neospora caninum shows.....
- Toxoplasma bradyzoites can be found in
- A main common sequelae of cattle trichomoniasis and mammalian toxoplasmosis is.....
- Although Cryptosporidium parvum resides in the intestine, it does not cause cellular disruption because
- In.....infection, two asexual schizogony cycles occur in the endothelium and one in the lymphocytes.
- Two examples of venereal-transmitted protozoa are.....
and

2. All the following sentences are incorrect, please correct as appropriate.

- a. Surra disease is caused by Trypanosoma equiperdum.
- b. Pulmonary oedema, hydrothorax, and hydropericardium are remarkable in visceral leishmaniasis.
- c. In Besnoitia infection bradyzoites cysts can be found in the skeletal and cardiac muscles.
- d. The target cell for leishmania infection is erythrocytes.

Group IV

1. Describe the pathognomonic lesions of the following diseases:-

- | | | |
|---------------|-------------------------|-----------------|
| a- MCF | b-malignant form of FWD | c- Dunkop horse |
| d-Rinder pest | e- BSE | f-Rabies |

2. Enumerate forms and lesions of IBR

Morbid Pathology 2014

Please answer all questions

Group I

Name the following parasite and then tabulate the location and associated lesions

1. The larval stages of *Echinococcus granulosus*
2. Migrating ascarid larvae in non-specific host
3. Barber's pole worm in cattle
4. Parasite causes nodular worm disease
5. Canine heart worm disease
6. Larvae of most important equine strangles
7. Esophageal worm of dog
8. The larval stage of *taenia saginata*
9. The larval stages of *trichinella* species
10. Lung worm in sheep
11. Burrowing mite in live stock

Group II

A. Enumerate

1. The viral vesicular diseases and mention the gross and microscopic lesion in one of them
 2. The neurotropic viruses and mention the produced lesions by one of them
 3. The diseases caused by parvovirus infections in cats, does, cattle and pigs
 4. The viral diseases characterized by ulcerative lesions across the gastrointestinal tract
- B. Mention a disease caused poxvirus causes high mortality then describe the associated lesions.

Group III

- A. Enumerate the protozoal disease you have studied this term then describe the pathogenesis and lesions produced by one of them

Morbid Pathology 2015

Answer all the following questions

1. Choose the correct answer

- a- All of the following statements about hemorrhagic septicemia are true EXCEPT:
- is an acute septicemic disease of cattle and buffaloes
 - Caused by *P. multocida* serotypes B&E
 - Characterized by swelling of head and neck especially in the region of the throat
 - The lesions are localized to lungs
- b- Infectious or non-infectious disease limited to a particular area is called
- Contagious disease
 - infectious disease
 - Enzootic disease
 - Sporadic
- c- Lymphatic thrombi, interstitial edema and sequestra are pathognomonic pulmonary lesions in
- CBPP
 - Shipping fever
 - Pneumonic pasteurellosis
 - Salmonellosis
- d- Localized bronchopneumonia with multiple abscessation is characteristic for
- CBPP
 - Hemorrhagic septicemia
 - Pneumonic pasteurellosis
 - Salmonellosis
- e- *Fusobacterium necrophorum* can cause each of the following affections in farm animals EXCEPT:
- Calf diphteria
 - Gangrenous dermatitis
 - large areas of hepatic caseous necrosis
 - large areas of -hepatic coagulative necrosis

f- All of the following statements about anthrax are true EXCEPT:

- The lesion is localized to the regional lymph nodes in swine
- The disease is also called malignant carbuncle in man
- The disease occurs mainly through ingestion or inhalation of spores
- The disease occurs mainly through ingestion or inhalation of bacilli

g- All of the following statements about dermatophytosis are false EXCEPT:

- Caused by dermatophilus congolensis
- It is also called ring worm in animals
- It is one of the deep mycosis
- Tissue reaction against it is mainly granulomatous

h- Each of the following can be form of bovine colibacillosis EXCEPT:

- Septicemic colibacillosis
- Coligranuloma
- Enterotoxic colibacillosis
- Enterotoxemic colibacillosis

i- All of the following statements about salmonellosis are true EXCEPT:

- Salmonellosis is a febrile bacterial disease
- Salmonellosis causes acute septicemic form especially in young animals
- Salmonellosis causes chronic enteritis in older animals
- erection with salmonella in older cattle is usually severe

j- Pasteurella organism can cause each of the following disease EXCEPT:

- Hemorrhagic septicemia
- Shipping fever
- Typhoid
- Fowl cholera

II- Mark (true) or (false) and correct the false statement

- Micro abscess of brain stem is the characteristic lesion of listeriosis - lambs
- Arthritis is the main lesion in aborted fetus due to brucellosis
- Guttural pouch empyema is one of complications of strangles in old horses
- Leptospirosis is One of venereal diseases in cattle

III

A. Differentiate pathologically between the following:

- 1- Granuloma of actinomycosis and actinobacillosis.
- 2- Granuloma of tuberculosis and Pseudo tuberculosis

B. Complete the following:

- Combination of tuberculous lesions in the organ and its regional lymph nodes forms what is called
- Tuberculous lesions which accompanied early generalization are named term.....
- Disseminated tubercles over the pleural and peritoneal surfaces give rise a descriptive term called..... disease.

IV

Answer the following

1. Compare pathologically between liver lesions in black disease and bacillary hemoglobinuria.
2. Describe the gross observations in case of infection with blackleg disease
3. How could you differentiate pathologically between diseases causing enlargement of bursa.
4. Differentiate pathologically between Mark's disease and avian leucosis.
5. Enumerate the avian diseases causing nervous manifestation and mention the characteristic microscopically lesion for each one

Surgery 2009

- 1- Regenerative medicine means repairing and restoring damaged or missing tissues with functional tissues instead of scarring " Tendons and wound repair in the bone has more to do with nature than with nurture ". Discuss this assertion in the light of current approaches to their management.
- 2- Discuss how joint response to DJD .What are the treatment options that should be considered after making a diagnosis of osteoarthritis explaining in detail the role of disease modifying arthritic drugs (DMOAD).
- 3- List the conditions that may cause distention of the digital tendon sheath in the absence penetrating wound .Briefly outline how you would further investigate this problem.
- 4- A nine year old event horse gelding is admitted as emergency to your clinic because earlier that day it has been involved in a stable fire resulting in full thickness burns to 10% of the total body surface area. The burns are all on the neck and thorax. Describe in detail the medium term. Discuss the possible complications of such an injury and the steps you would deal with them.
- 5- Discuss the importance of the elimination of "dead space" during surgery. What technique may be used?
- 6- Discuss critically the techniques available to treat the common forms of external neoplasia in animals.
- 7- Describe the potential complications that may occur following internal fracture fixation. Indicate the risk factors for each complication and describe the methods that may be employed to minimize their occurrence.
- 8- What complications can occur with the use of distal limb casts in the horse. How may they be minimized?

Surgery 2010

1- In which Type of wound must particular attention be paid to insuring it heals from the inside out? What disease must you be concerned about with this sort of wound? How you can stop it.

2- A veterinary surgeon in a neighboring practice, with limited hospital facilities, phones to ask you about septic arthritis as this have just been diagnosed in a foal in heir hospital. He was previously unaware of this condition and wants advice about the condition and infection control. Write short notes on the pathophysiology of septic arthritis. What would you advise?

Describe the various methods used to treat such case.

3- Prepare a table to compare surgical affections at the umbilical region of management of two of them

4- Write a brief account on each of the following:

- a- Treatment of weak ulcer.
- b- Plaster pin construct and auxiliary fixation.
- c- Types and treatment of equine sarcoid.

5- List the practical measures that can be taken to reduce the risk of post-fracture complications.

Surgery 2011

1- Enumerate using definite words and statements:

- a. Factors related to wound contamination and infections.
- b. Things to be done and to be avoid during wound debridment.
- c. Advantages and disadvantages of open wound healing.
- d. Symptoms of progressive bleeding and steps for treating syncope.
- e. Examples of traumatic emphysema and prophylactic measures of traumatic fever.
- f. Prognosis of burns according to extent and locations in animals.
- g. Characters of articular cartilage and changes of chronic is articular disease.
- h. Radiographic finding of septic arthritis and synovial changes in DJD.
- i. Factors contribute to difference in tendon healing.
- j. Traditional and additional therapy for management of tendonitis.
- k. Prognosis of tendons and ligaments (FMS) laceration.

2- Please explain each of following item:

- a. Sarcoid types and alternatives in treatment.
- b. Complications of fracture healing.
- c. Classification and management of gangrene.
- d. Factors affecting process of fracture healing and X-ray findings.

3- Write in detail about each of the following:

- a. Indication and contraindications for use of counter irritant in general inflammatory conditions. Use examples in your answers.
- b. Interferences of choice for treating fistula and sinus.
- c. Simple and advanced methods for diagnosis of surgical swellings.
- d. Fundamental and types of skin incisions.

Surgery 2012

- 1-State and briefly explain the complications of wounds and wound healing and the basic concepts and techniques of their avoidance.
- 2-Please enumerate non invasive surgery strategy (OBDT) for treatment of severely comminuted fractures? discuss briefly on plate-pin construct? Enumerate policy and medications of bone plate removal?
- 3-Please list cause, diagnosis and management of each of the following:
 - a- Tendon laceration.
 - b- Infective arthritis.
- 4- Write briefly on each of the following:
 - a- Indications , contraindications and applications of counter irritant, use examples in your answer.
 - b- Varieties and management of cysts, gangrene and fistulae.

Surgery 2014

1. **Explain** in detail why and how the Following statements are true
 - A. End-stage joint is a generic term used to describe several chronic articular changes in the same joint- Explain those changes in detail?
 - B. The degree of tendon elasticity is known as the "strain" capacity if this capacity is exceeded, the tendon will bow injured? How to deal with a case of tendonitis?
2. **What are the** principles of AO/A5IF methods or osteosynthesis?
How to deal with a highly comminuted non reconstruct tibial fracture in a 25 Kg German shepherd dog? Name the complication of the fracture healing?
3. **In which type** of wound must particular attention be paid to insuring it heals from the inside out? What disease must you concerned about with this sort of wound? How you can stop it?
Now to manage a deep second degree burn involving 15% of total body surface area in a buffalo.
4. **Enumerate** the different varieties of fistulae treatment of that one gives rise to bloody pus?
5. **Enumerate** the different types of bursitis? State the treatment of that one which is fibrous in nature?

Surgery 2015

GROUP (1)

Please copy and complete (using definite words) the following in your answer paper

1. A.....B.....C.....D.....indicates ischemia to the edges of a wound in unpigmented skin
2. A..... b..... C.....d.....e..... are emergencies surgical affection which requires immediate veterinary attention while A.....B.....C.....D.....and c are considered cold affections could be postponed
3. A.....B.....C.....D.....E.....F.....G.....H.....and I..... are Halsted's principles of surgery
4. Blistering agents are indicated in A.....B.....C.....D.....E..... While A.....B.....C.....D.....and E..... Are contradictions to primary wound closure
5. A.....B.....C.....D.....are methods employed to diagnose neoplasms in animals while E..... is the most common diagnostic method
6. A.....B.....C.....D.....E.....F.....are myths about wound care and healing
7. A.....B.....C.....D.....E.....Are factors impede wound healing
8. A.....B.....C.....are the 3 stages of wound healing in order
9. A.....B.....C.....D.....are features of the inflammatory phase of wound healing.
10. Cryosurgery defined as whileandare examples of elective Surgery

GROUP 2

1. Discuss the clinical significance of radiography in fracture healing.
2. Enumerate the less invasive strategies for treatment of complex fracture
3. Explain the imperfect union of the fracture healing
4. Describe current approaches for bowed tendon management
5. Enumerate topical antibacterial treatment of burn and causes of deaths from burns
6. Write about scenario of pathogenesis of D, ID and treatment of articular degeneration
7. interpretate the fracture forces and how it can be neutralized according to AO principles

Clinical Pathology 2008

Please answer the following questions:

1- A dog 5 year old male was presented with the following history: **Sever** abdominal pain, Vomited twice yesterday, Dehydration and weight loss. Laboratory data:

Tot. Protein	8.15 g/dl	H
Albumin	4.95 g/dl	H
ALT	115 IU/L	H
AST	75 IU/L	H
S. ALP	65 IU/L	H
GGT	85 U/L	H
CK	51 IU/L	
BUN	41 mg/dL	H
Creatinine	2.1mg/dL	H
Calcium	6.8 mg/dL	L
Phosphorous	4.6 mg/dL	
Sodium	141 mmol/L	
Potassium	4.2 mmol/L	
Chloride	114 mmol/L	
Amylase	1160 U/L	H
Lipase	1200 U/L	H
Bl. Gas analysis - pH	7.48	H
- HCO ₃	31.5 mEq/L	H
- PCO ₂	27.4 mmHg	
Urinalysis (Voided)		
Amber, clear - Sp.gr.	1.035	
- pH	6.3	
Random blood glucose	365 mg/dl	H
Protein	Nil	
Other chemistries	negative	

- a- Do the results indicate that this animal has cholestasis? Yes or no? Why?
- b- Is the animal has hepatocellular necrosis? Yes or no? Explain.
- c- Is the animal has a clinical evidence of acute necrotic pancreatitis? Why?
- d- Is renal tubular function compromised? Explain?
- e- Do the results indicate that this animal has muscle disease? Why or why not?
- f- Explain the acid base balance disorder.
- g- What is your final diagnosis.

2- Give account about interpretation of:

- a- Hyper osmolarity.
- b- Hyper lipemia in nephritic and pancreatic diseases.
- c- Isosthenuria and steatorrhea in dog.

3- Write about differential laboratory diagnosis of:

- a- Primary polyuria a secondary polydipsia cat.
- b- Different types of jaundice in horse.
- c- Ascites and urinary bladder rupture in calve.

4- Give full account on:

- a- Microalbuminuria in dog.
- b- Cylindroids and telescoped urinary sediment.
- c- Positive urine glucose with stripe method without hyperglycemia.

Clinical Pathology 2010

Please answer the following questions :

I- A 12 years old male dog is submitted to your clinic with the Complain that he is listless is not eating and polyuria. Laboratory data:

Tot. Protein	7.6 g/dl	
Albumin	2.2 g/dl	L
AST	64 IU/L	H
ALT	92 IU/L	H
GGT	12 IU/L	
SAP	125 IU/L	
Glucose	95 mEq/L	
CK	21 IU/L	
Potassium	3.8 mEq/L	
Chloride	114 mEq/L	
BUN	28 mg/dL	H
Creatinine	2.4 mEq/L	H
Calcium	10.2 mg/dL	
Phosphorus	4.3 mEq/L	
Bl. Gas analysis: -HCO ₃	16.5 mEq/L	L
-PCO ₂	28.1 mmHg	
-pH	7.21	L
Urinalysis (Voided):		
Yellow color		
Sp.gr	1.035	
-PH	6.3	
- Protein	+ve	
-Glucose	+ve	
- Ketone	Nil	
-Occult blood	-ve	
Sediment:		
- RBCs	1-3/hpf	
-WBCs	0-2/hpf	

- 1- Does this animal has hepatocellular necrosis? Why?
- 2- Ss their glomerular or tubular problem ? Explain?
- 3- Is there is acid base balance disorder ? Explain?
- 4- Do the result indicate that the animal has muscle disease? Why or why not?
- 5- what is your final diagnosis?

II-Write what you know about:

- a- laboratory diagnosis of dehydration.
- b- relation between osmolality , hyponatremia and hyperglycemia.
- c- disturbance of blood chloride level.
- d- normal A/C ratio.

III- Give an account on:

- a- Interpretation of lipoproteinemia.
- b- Significant laboratory diagnosis of glycosylated proteins, SD arginase.
- c- Increase in direct bilirubin in non hemolytic cases.
- d- Increase conjugated bilirubin without elevation of ALT, AST or ALP.

IV- Discuss the following:

- a- fat absorption test.
- b- laboratory finding of diabetes mellitus arise from insulin resistance in dog.
- c- Telescoped urinary sediment.
- d- Anti cardiolipin antibodies and ANCA.

Clinical Pathology 2011

1- Write short notes about:

- a. Hypoalbuminemia.
- b. Hyperkalemia.
- c. Secondary hyperlipemia.
- d. Plasma turbidity test.

2- Discuss briefly:

- a. Isoenzymes.
- b. Enzymes indication cholestasis.
- c. Dublin-Johnson syndrome.

3- Write what do you knew about:

- a. Titration metabolic acidosis.
- b. Indication of water deprivation test.
- c. Specific tubular clearance test.

4- Diagnosis of the following ceases:

- a. Normal A/G ratio with hyperproteinemia.
- b. Acidic urine with alkalosis.
- c. Normal glycemia with positive urine glucose.
- d. Normal ALT and CK blood level with elevation AST.
- e. Dog has all types of casts in addition to red cells, white cells and oval fat bodies.

Clinical Pathology 2012

1- A 5-year old Hereford cow was presented with a complaints that she has been passing red urine with clumps of red, had a poor appetite and is losing weight. Physical examination revealed that the animal was thin and anorexic and had hematuria.

Laboratory data:

Blood chemistry

Tot.protein	6.5g/dl
Albumin	3.0g/dl
Globulin	3.5g/dl
Fibrinogen	800mg/dl (H)
AST	82 Iu/L
SAT	100 IU/L
BUN	20 mg/dl
Creatinine	3.2 mg/dl (H)
Calcium	4.45 mg/dl (L)
Phosphorus	9.15 mg/dl (H)
Total Bilirubin	

Urine analysis

Red and cloudy	
Sp.G	1.041
pH	8.5
Protein (dipstick)	3+
Glucose	Negative
Ketone	Negative
Blood	3+
Bilirubin	Nil
<u>sediment</u>	
WBC/HPF	80-100 (H)
RBC/HPF	More 100 (H)
Casts	Nil
Crystal	None seen
Bacteria	++++ve

- 1- What is the significance of the elevated fibrinogen?
- 2- What do the urine analysis results indicate?
- 3- Is renal tubular function compromised? Explain.
- 4- Is glomerular function compromised? Explain.
- 5- what is the significance of the serum Creatinine level?
- 6- Why is BUN normal in this animal while Creatinine is elevated?
- 7- Why the cast is not present?
- 8- What is your final diagnosis?

2- Mention the clinic pathological findings of:

- a) Obstructive jaundice in horse.
- b) Dehydration in cow.
- c) Acute necrotic pancreatitis.
- d) Compensated metabolic acidosis.

3- Give the diagnostic significance:

- a) BSP retention test.
- b) Creatinine clearance test.
- c) Van Den Bergh reaction.
- d) Vasopressin test.

4- Write the clinical significance:

- a) Hyperkalemia.
- b) Acute phase protein.
- c) Hyponatremia.
- d) Secondary hyperlipemia.

Clinical Pathology 2013

A. 20 year old mare presented to your clinic with the complication of frequent urination, increased water intake and weight loss. Physical examination revealed that the animals was thin, 5% dehydrated and exhibited polyuria and polydipsia

Laboratory data

<u>Blood chemistry</u>		<u>Urine analysis (Catheter)</u>	
Total protein	9.2g/dl	Yellow and clear	
Albumin	2.1g/dl	Sp.G	1.011
Globulin	5.8 g/dl	pH	7.6
A/G ratio	.63	Protein	++ve
AST	155 IU/L	Blood	-ve
SD	42 IU/L		
GD	51 IU/L	<u>Sediment</u>	
GGT	24 IU/L	RBCs/HPF	3 – 5
BUN	74 mg/dl (H)	Crystal	-ve
Creatine	4.5 mg/dl (H)	WBCs/HPF	2 – 4
Calcium	96 mg/dl (H)		
Phosphorus	2.5 mg/dl (L)		
T.Bili	1.1 mg/dl (H)		
Indirect bill	.9 mg/dl (H)		

1. Does this animal has a clinical evidence of liver disease , why , interpret the bilirubin results , if the problem in dog what the blood bilirubin would be
2. Why is the animal hypercalcemic and hypophosphatemic
3. If the problem in dog what would be the blood calcium and phosphorus , explain
4. If the problem is in cow what the urea level would be explain
5. Interpret the urinalysis
6. What is your final diagnosis

B. Write short notes on

1. Steatarrhea and createorrhea
2. SIADH
3. Secondary hyperlipoproteinemia
4. Laboratory finding of diabetes mellitus

C. What do you know about

1. HbA1c and biliprotein
2. Isoenzymes and enzyme activity
3. Increase indirect bilirubin in non-hemolytic cases

D. Give an account on

1. Diagnostic importance of ALT and arginase enzymes
2. Paradoxical aciduria
3. Indication of vasopressin test

Clinical Pathology 2014

A. Dog 3 year old was presented to you with the following history emaciation , gingival ulcer , vomiting , polyuria and polydipsia

Laboratory data

<u>Blood chemistry</u>		<u>Urine analysis (Catheter)</u>	
Total protein	7.1 g/dl	Amber and clear	
Albumin	3.7 g/dl	Sp.G	1.012
ALT	15 IU/L	pH	6.1
AST	72 IU/L	Other chemistry	negative
Glucose	108 mg/dl		
BUN	283 mg/dl		
Creatine	9.7 mg/dl		
Calcium	8.8 mg/dl	<u>Blood gas analysis</u>	
Phosphorus	12.5 mg/dl	HCO ₃	18 mEq/l
Sodium	136 mmol/l	PH	7.2
Potassium	5.5 mmol/l	PCO ₂	23.1 mEq/
Chloride	94 mmol/l		
Anion gap	28.9 mmol/l		

1. Does this animal has evidence of renal disease
2. Why is the animal hypocalcemic and hyperphosphatemic , if the problem in horse what the blood calcium and phosphate level , explain
3. Is there is acid base balance disorders
4. Interpret the other blood chemistry
5. What is your final diagnosis

B. Discuss the following

1. Hyponatremia in case of hyperglycemia and lipemia
2. Diagnostic importance of 5-ND and ALP
3. Increase indirect bilirubin in non-hemolytic cases
4. Water deprivation test

C. Give an account on

1. Hyperlipemia
2. Isothenuria
3. Laboratory diagnosis of dehydration
4. Serum fructosamin

Clinical Pathology 2015

A. Mare 18 year old is brought to you with the complaint of frequent voluminous urination , increase water intake and weight loss. Physical finding revealed that the animal was thin dehydrated and exhibited polyuria and polydipsia

Laboratory data

<u>Blood chemistry</u>		<u>Urine analysis (Catheter)</u>	
Total protein	8.4 g/dl	Yellow and clear	
Albumin	3 g/dl	Sp.G	1.011
Globulin	5.1 g/dl	pH	7.0
A/G ratio	.63	Protein	+2
AST	155 IU/L	Blood	NIL
SD	42 IU/L		
GD	18 IU/L	<u>Sediment</u>	
GGT	24 IU/L	RBCs/HPF	3 - 4
BUN	74 mg/dl (H)	WBCs/HPF	3 - 5
Creatine	4.5 mg/dl (H)		
Calcium	14.6 mg/dl (H)		
Phosphorus	2.5 mg/dl (L)		
T.Bili	1.1 mg/dl (H)		
Indirect bill	0.9 mg/dl (H)		

1. Does this animal has a clinical evidence of renal disease
2. Does the animal has hepatocellular damage, why, interpret the bilirubin results if this problem in dogs what the blood bilirubin level. explain
3. Why is the animal hypercalcemic and hypophosphatemic
4. If the problem in dog what would be the blood calcium and phosphorus , explain
5. If the problem is in cow what the urea level would be explain
6. What is your diagnosis

B. What do you know about

1. Lipoprotein (definition , classification , lipid profile in case of risk patient)
2. Enzyme specificity and isoenzymes (examples)
3. Diagnostic importance of glycated proteins
4. Interpretation of fishburg concentrate test

C. Discuss the following

1. Blood gas analysis and the compensatory mechanism in case of metabolic acidosis
2. Causes of hereditary increase of direct bilirubin
3. Laboratory finding of diabetes mellitus
4. Ccr test in domestic animals

Fish Management 2009

Please answer the following Question:

- 1- Enumerate diseases of fishes that transmitted orally via ingestion of unpasteurized fish offals and described fully one of them.**
- 2- Describe the differential diagnosis of the causative agents which cause the following disease sign:**
 - a- Partial or complete sloughing of gills.
 - b- Spiral swimming of fish in water.
 - c- hemorrhagic patches over fish skin.
 - d- White creamy nodules in internal organs.
- 3- One of the most serious problem affect fish production is hatcheries disease comment on one disease that affect broodstock and fries (causative agent, disease signs and your judgment).**
- 4- In which Fish diseases we can apply the following:**
 - a- Summer drying system.
 - b- Formalin at a dose of 10 mg/L.
 - c- Furnace.
 - d- Mg. sulphates.
 - e- Increase the water currency.
 - f- Organic phosphorus compounds.
 - g- Try to remove the real cause of skin damage.

Fish Management 2011

I- Describe the laboratory differential diagnosis of the following diseases:

- a. Hemorrhagic septicemia in fresh-water fish.
- b. Mycobacteriosis of fish.

II- Mention the economic importance, of anchor worm infestation.

III- one of the most serious problems affect fish production is respiratory manifestations describe the possible causes that responsible for such and how to differentiate between them in laboratory.

IV- How could you deal with the following diseases with full description of dose, route of application and duration of the used drug?

- a- Hexamitiasis in salmonids.
- b- Peduncle disease in cold water fish.
- c- Cotton wool disease in broad stock and eggs.
- d- Gill flukes.

Fish Management 2012

- 1) Enumerate fish diseases mainly affecting gills with full description of one parasitic disease affecting fish gills diagnosed by detection of adult female parasite on gill scrapping.
- 2) Rewrite the following sentences and correct the wrong word(s) if present:
 - 1- Marbling appearance of the affected gills is a characteristic sign of sand paper disease.
 - 2- Infectious Hematopoietic Necrosis is primary disease of carp species and caused by herpes virus.
 - 3- Eye cataract is a parasitic disease caused by Ichthyophonus hofri.
 - 4- Nocardiosis is a chronic granulomatous disease affecting mainly cold water fish.
 - 5- Dactylogyrus vasator is a viviparous worm containing 8 pairs of marginal hooks and mainly found on fish gills.
 - 6- Tomites are the infecting stages of black tail diseases.
 - 7- Saprolegniasis is a mycotic disease infecting fish eggs through vertical transmission.
 - 8- Enteric red mouth disease is a viral disease of tilapia species caused by Rhabdovirus,
 - 9- Virulence of Aeromonas hydrophila is mainly due to presence of a layer in the bacterial cell wall and fish mainly die due to hypoglycemic shock.
 - 10- Leech infestation in fish pond could act as a mechanical transmitter to trypanosomiasis.

3) Enumerate specific salmonide diseases with full description and treatment of one of them can be transmitted vertically and characterized by its chronic nature and presence of white creamy nodules on the kidney.

4) In which fish diseases we can apply the following treatment:

1- Furance in dose of 1.5mg/L for one hour.

2- Furazolidone in a dose of 35mg/Kg fish body weight per day for 20 days.

3- Summer drying system and using calcium oxide (hydrated lime) to create alkaline media.

4- Magnesium sulphate in a dose of 0.2-0.3% of the diet for 3 days.

5- Erythromycin phosphate in a dose of 190.220mg per kg of fish per day for 21 days to control mortality and in dose of 1mg/L in water to destroy the organism within the egg.

Fish Management 2013

A. Enumerate fish disease that

1. Characterized by hemorrhagic patches on skin
2. Transmitted vertically.
3. Easily diagnosed by naked eye.
4. Could not be treated

B. Mention the disease name and the causative agent in the following cases

1. Disease diagnosed by presence of adult female parasite with anchor embedded in the fish skin, fins and fish mainly die due to peritonitis
 2. Disease caused by motile bacteria that possess a surface layer (S layer) which considered a virulence marker to that bacterium
 3. Disease with opalescent mucus plug characteristically found in the fish intestine and the alimentary tract always free of food or faeces.
 4. Disease in which we find both male and female free living, on skin And mounds of fish making severe irritation to skin and linear hemorrhage the skin.
 5. Examination of gill scraping from infected fish under the microscope the adult worm with seven pairs of marginal hooks and usually chic pair of median hooks on the opisthorch.
 6. Presence of white to gray-white abscesses in kidney and the bacteria present intracellular.
 7. Disease with abscesses develop in the muscles of catfish, especially along the sides and caudal peduncle abscesses may increase in size into large cavities filled with foul-smelling gas.
 8. Disease biologically transmitted by fish leech
- ### C. Discuss in details the etiology and treatments of the following and support your answer with illustration if possible
1. Gill and skin fluke
 2. Marine and fresh water Ich
 3. Spironucleosis and Costiosis
 4. Mycobacteriosis and Bacterial kidney diseases.
 5. Lymphocystic and Ichthyophonus

Fish Management 2014

A. Describe briefly the causative agent and clinical signs of the following fish diseases

1. Whirling disease.
2. Motile Aeromonas Septicemia.
3. Saddle- back disease.
4. Gill rot (Branchio mycosis)

B. Discuss the field and laboratory diagnosis of the following

1. Gill fluke (Dactylogyrus).
2. White-spot disease in fish
3. Vibriosis in Eels.
4. Trypanosoma as blood parasite

C. How can you deal with the following aquaculture disease problems (treatment and control if possible)

1. Frunculosis in Salmonids.
2. Anchor worm infestation (lerniosis)
3. Cotton-wool disease (Saprolegniasis) in fertilized eggs and adult fish.
4. Infectious pancreatic necrosis viral disease (IPN).

Fish Management 2015

Please illustrate with diagram only the causative agent of the following diseases and mention the most important clinical signs

- | | |
|----------------------------|--------------------------|
| 1. Anchor worm infestation | 6. Blue slime disease |
| 2. Black tail disease | 7. Fish lice |
| 3. Gill flukes | 8. Saddle back disease |
| 4. White spot disease | 9. Epistyles infestation |
| 5. Hexamita infestation | |

Enumerate the causative agent and treatment of each of the following diseases

1. Red best of Eel
2. Dee Disease
3. Parasitic eye cataract
4. Columnaris

Tabulate the main points of differential diagnosis between the following

1. Lymphocystis and Yerseniosis
2. Frunculosis and Sandpaper disease
3. Black spot disease and Yellow grub disease
4. IPN and IHN

Write full description on the role of each of the following on the development of disease

(8 marks)

1. Secondary zoospores of *Saprolegnia parasitica* in tilapia farms.
2. Aged spore of *Myxosoma cerebralis* in Salmon farms.
3. Toxins produced by *Aeromonas hydrophila* infection.
4. Syncytium of *Brachiomyces Sanguinus* in common carp